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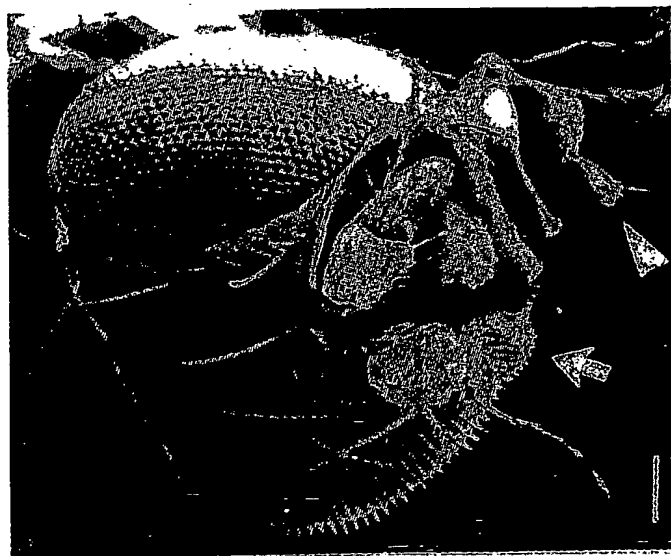


FIG. 1A

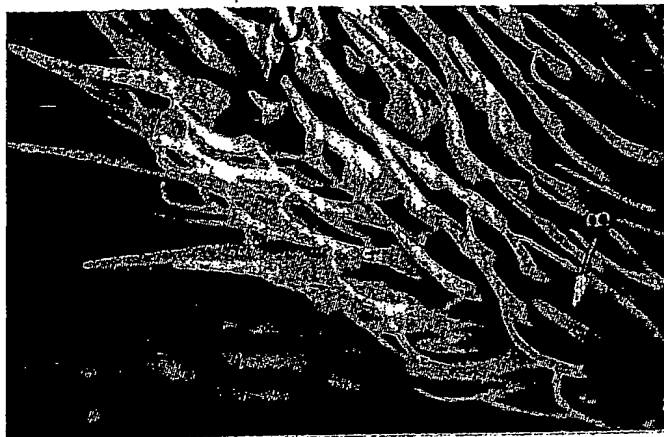
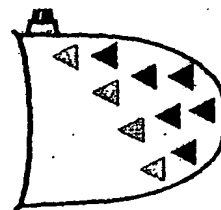


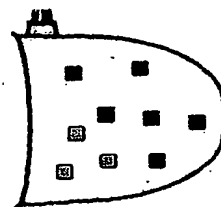
FIG. 1B

FIG. 1C



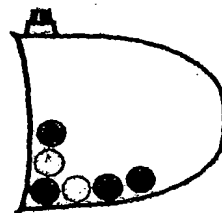
TRICHODEA

FIG. 1D



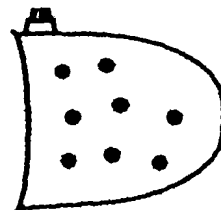
COELOCONICA

FIG. 1E



LARGE
BASICONICA

FIG. 1F



SMALL
BASICONICA

FIG. 2C

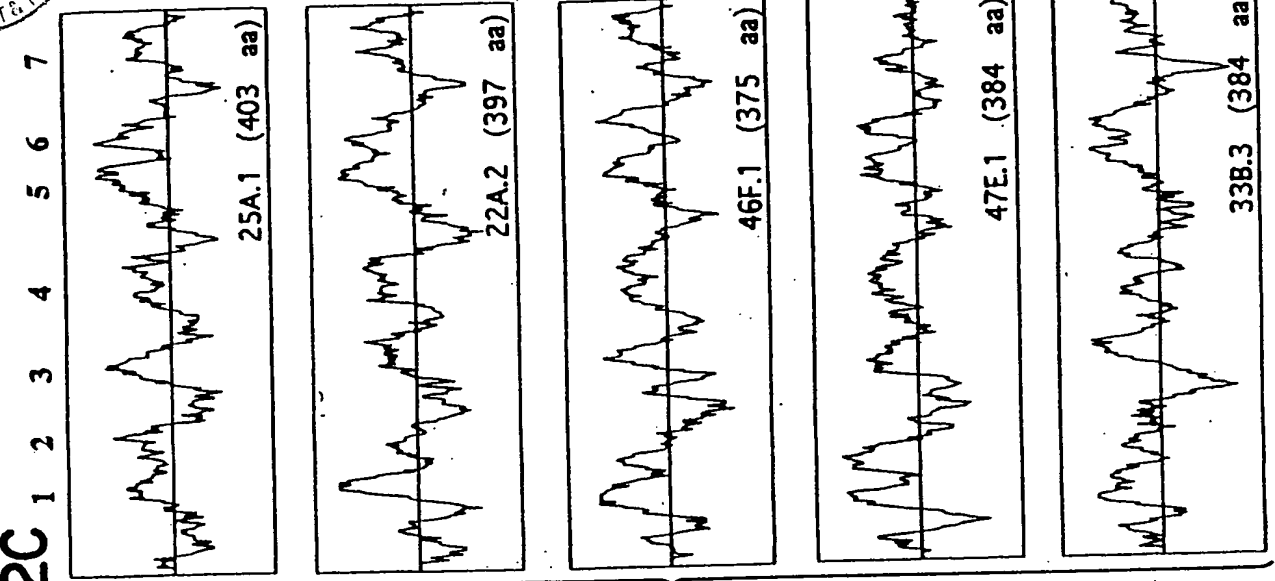


FIG. 2A

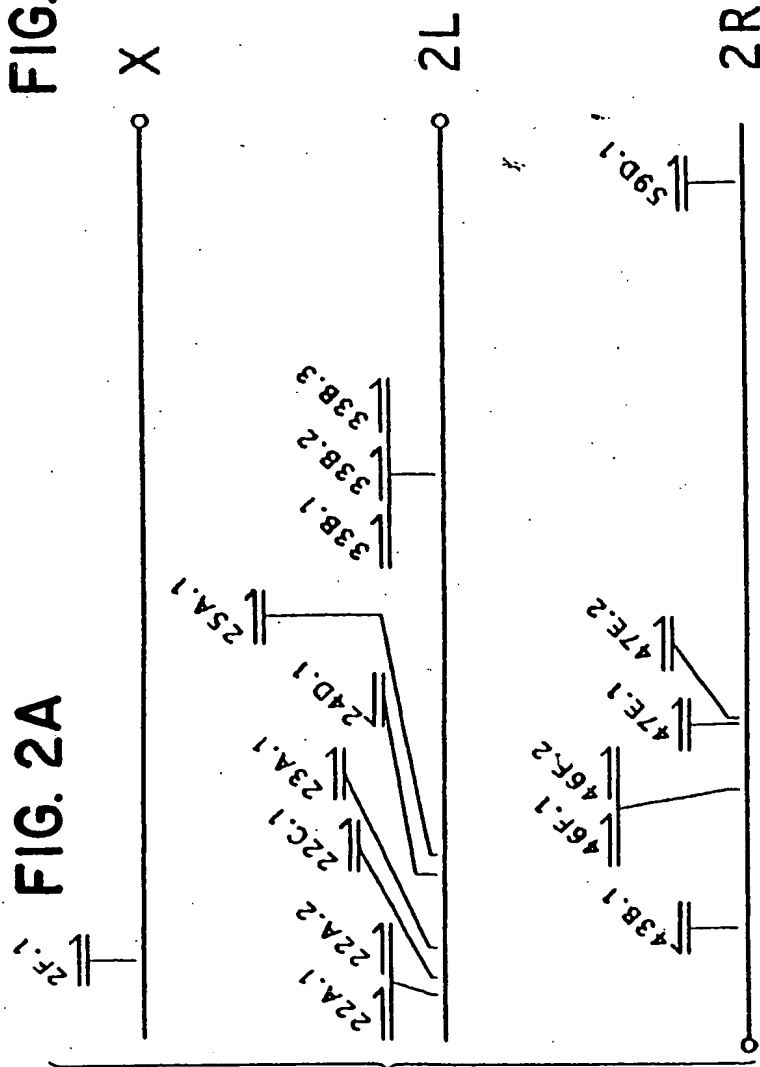
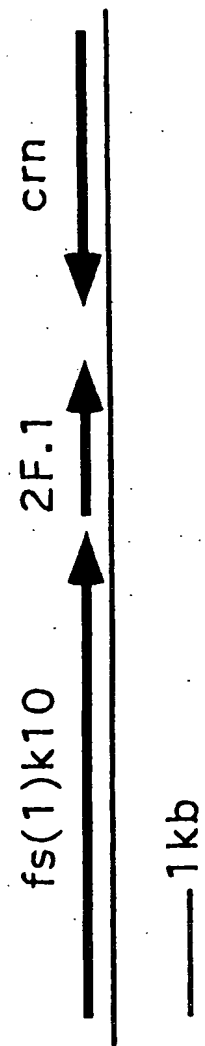


FIG. 2B



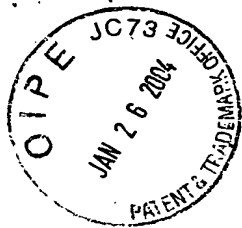


FIG. 3A

1
59D.1 1 -----MAEVRDLSLEFFKSHWTAHRYLGVAFHVENWKNLYVFISVSNLLVTLCYPPVHLGISLFRN---RTITEDILN 72
23A.1 1 -----MKLSETLKIDYFRVQLNARIICGA-----LDLSEGRYHSWMLLCILVYLPPTMLLRGVYS--FEDPVENNFS 67
33B.1 1 -----MDSRRKVRSENLYKTYWLYMRLGV-----EGDYPFRRLVDFTITSFTITLFPVHLILGMYYK----PQIQVFRS 67
33B.2 1 -----MDLKPRVIRSEDIYRTYWLYMHLGL-----ESNFFLNRLDLVITFTVITWYPIHLILGLFME---RSLGDVCKGL 69
33B.3 1 -----MWIIDSLSFYRPFWICMRLLP--TFKDDSSRPVQLYVWLLHILVTLWFPPLHLLHLL---PSTAEFFKNL 68
2F.1 1 -----MEKQEDFKLNTHSAYYHWRVMEITGLMRPPGUSSLLYVVSITVNLVTVLPPLSLLARLFT---TNMAGLCENL 74
22A.1 1 -----MLSKFFPHIKEPLSERVKSRDAFYLDVMMISFGWTEPENKRWILPYKLWLAFNIVMLILPISISIEYLHREKTSAGEFLSS 87
22A.2 1 -----MLSQFFPHIKEPLSERVKSRDAFYLDVMMISFGWTVPENKRWDLHYKLWSTFTVLLIFILLPISVSVEYIQREKTSAGEFLSSI 87
47E.1 1 -----MDSFLQVKSTIALGLGDFLSENRKPYRAMNVFSIAAIFPFIILAAVLHNW---KNVLLADAM 64
46F.1 1 -----MSKGEIFYKGQKAFENILSLWPQIERRWRIHQVNVYVIVFWVLLFDLLVLHV-----MANLSYMS 64
46F.2 1 -----MVTEDFYKYQVWYFQIL--GVWQLPTWAADHQRFSQMRFGFILLVILFIMLLF-SFEMLNNISQVR 64
22C.1 1 -----MTDSGQPAIADHFYRIPRISGLIVLWQIRGGGRPHAHLLFVFAFANVVGVAVGEVSGCVHLDN-----LVVALEAF 77
24D.1 1 -----MERHYFMVPKFAISLIGFYPEQKR-----TVLYKLWSSFFNFILTYGCYAEAYYGIHYIPI----NIATALDA 65
43B.1 1 -----MTIEDIGLVGINVRMWRHLAV--LYPTGSSWRKFAVLVPYAMNMQFVYLLRMWGD-----LPATILNM 64
47E.2 1 MNDSGYQSNLSLLRVLDFEFSVRQESPLPRAFYVYVRAFLSPLYRWINLFIMCNVMTIFWTMFVALPESK----NVIEMGDD 84
25A.1 1 --MFGHFKLVYPAPISEPIQSDSNAYMMETLRNSGLN--LKNDFGIGRKIRWVFSFTYNNMVL[PVSPFINVVIHLAEFPPELLQSD] 84

3

59D.1	73	TTFATCAGKCLLYAYNIKOVLEMERLLRLDERVVGPEQRSYQG-----VRVQLRNVLYVFIGIYMPICALFAELSFLEKEE	152
23A.1	68	SLVTSLNLMKFCMYVAQLTKMVEVQSITGQLDARVSGESQSERHRN-----MTEHLLRMSKLFQITYAVVFIIAAVPVFETE	147
33B.1	68	HFTSECLFCYKFFCFRWKLKEIKTIEGLLODLSRVESEERNYFNQ-----NPSRVARMLSKSYLVAALSAITATVAGLFSTG	148
33B.2	70	PITACFFASFKFICFRFKLSEIKETIEILFKELDQALRSRECEFFNQ-----NTRREANFIWKSFIVAVGLSNISAIASVLEGGG	150
33B.3	69	TMSLTCVACSLKHVAHLYHLPQIVETIESITIEQLDTFIASEQEHRYRD-----HVHCHARRFRTRCLYISFGMIYALFLGVFVQV	148
2F.1	75	TITITDIVANLKFANVYMWVKOLHEIRSLRLMDAPARLVGPPEEISA-----LRKEVNIAGQTRTFASIFVFGTTLSCVRVVVR	155
22A.1	88	EIGNVMYGSFKCAFTLIGFKKQKEAKVILLDQDKRCLSDKEERSTVHR-----YVAMGNFFDILYHIFVSTFVMNFPVLELLE	165
22A.2	88	QIGVNMVYGSFHSYLTMMGYKKRQEKAKMSLDELDKRCVCDEERTIVHR-----HVALGNFCYIFYHIAVTSFLISNLSFETMK	165
47E.1	65	VALLITILGLKFSMILYLRDFKRLIDKFRLLMSNEAEQEEYAEILNAANKODQRMCTLFTCTFLAWALNSVLPVLRMGLSYWLA	152
46F.1	65	EVVKAIFILATSAGHTKL-LSIKANNVQMEELFRLLDNEEFRRPGANEELIFAACACERSKRLRDFYGALSAALSMLIPOFALDWS	151
46F.2	65	EILKVFFMFATEISCMAKL-LHLKLKSRKLAGLVDM-LSPEFGVKSE--QEMQMLELDRVAVVRNRSYGIMSLGAASLILIVPCFD	148
22C.1	78	CPGTTKAVCVLKLWVFRS---NRRWAEIVQRLRAILSLLLSGGTAT-----NAAFTLQPLIMGLYRWIVQLPGQT	146
24D.1	66	CPVASSILSLVMVAIWVY---QDELRSUTERRFYTLATQLTFLLLCC-----GFCTSTSYVRHLIDNILRRTHGKDWIYETPEKM-	144
43B.1	65	FFFSAIFNALMRTWLYIKRRQFEELGQLATLFFHSILDSTDEWGRGI--LRRAREARNLAINLSASFIDIVGALFEYKFPPIGVV	150
47E.2	85	VWTSQNALVFTKIFVMHLR---CDEIDEILSDFEYFNRELPHNIDEE-----VLGNORLCYVIESGLYINCFLVNFSSAIFLQP	163
25A.1	85	QLCLNTWCFAKLFFTLIVYTHRLEANKHFDELDKYCVKPAEKRVKD-----MWATTIRLYLTFVWVYVLYATSTLLDGLLH	162

FIG. 3C

4

59D.1	153	R-----GLMPAMFPDHLST----	RMYIANAYQIVGISFQQLQNVSDCF	PAVVLCLISSHIKMLNRFEEVGL	DPARDAEK----	228
23A.1	148	L-----SLPMPMFPDWNKM----	VAYIGALVFOEIGYVFOIMQCFADSF	PPLVLYLISEOCLLIRLSEIGY	GYKTLSENEQ----	225
33B.1	149	R-----NLMYLGMPDYDFQATA----	AIMWISFSYQAGSSLLILELANDSY	PPITFCVSGHVRLIMRLSRIGH	HDVKLSSSENT--	226
33B.2	151	H-----KLLYPAMFPYDVQATE----	LIFWLSVTYQIAGVSLAILQNLANDS	YPPMTFCVAVAGHVRLAMRLSR	IGOGPEETIYLTG--	228
33B.3	149	I-SGNWELLYPAYFPFDLESNR----	FLGAVALGYQFWSLVEGFQGLNDTY	PTLCLLAGHVHLSIRNGQLGY	FDDETIVNHQ----	230
2F.1	156	P---DRELLYPAMFGVDWIMHST----	RMYVLINIVQLFGLIVQAIQNCASD	SYPPAFCLCLTGHMRALRLVR	RIGCRTEKSNKGQTYE	237
22A.1	166	R-----RHAWRMYPYIDSEQ-----	FYTISS-IAECFLMTEAIYMDLCTD	VCPLISMLMARCHISLKKORL	RNLRSKPGRTEDVYL--	241
22A.2	166	R-----IHAWRMYPYVDPEKQ-----	FYTISS-IAEVLRGWAVFMDLCTD	VCPLISMTARCHITILLKORL	RNLRSKPGRTEDVYL--	241
47E.1	153	G-HAEPELPPCLFPWNTHIR-----	NWVLSFIWSAFSTGVVLPVSLDIT	IFCSFTSNLCAFFKIAQYKVVR	FKGSLKESQATL--	233
46F.1	152	H-----LPDKTYNPLGENTGS----	PAYMILLYCYQCLALSVSCITNIG	DSLCSLFFILKCOLDILAVRL	DKIGRLITTSGGTVE--	228
46F.2	149	N---FGEPLAMLEVCSIEGWI-----	QWMSOYLHFSICLLPTCVLNITYD	SDSVAISLLCFLKVQLQMLVLR	LEKLGPIEPODNEKI--	227
22C.1	147	E-----LPFNILPFAVQPG-----	VFPLTYVLLTAGACTVFAFSFVDG	FFICSCLYICGAFRLVQODIR	IRIFADLHGVDVFTF--	222
24D.1	145	-----MFPDLLLLRLP-----	LPITYILVHWHGTYTVVCFVGADG	FFLGFCLYFTVLLCLQDDV	CDLLEVENIEKSPSE--	214
43B.1	151	T-FFLPAHPFGLALPGVSMTSS----	PVMEVITYLAQLPTPLLSMMYMPF	VSIFAGLAIFGKAMLOILVHRL	GOIGGEEQSEEEERFQ--	232
47E.2	164	L-LGEGKLPFHSVYPPFQWHRDL	HPYTFWFLYIMQSLTSQHNLSIL	MDVMWIGISTFLTQALNKLCL	CTEIRKLGDMEVSDKRFHE--	248
25A.1	163	H-----RVPYNTYPPFINWRVD-	RTQMVIQS-FLEYFTVGAIYVATAT	DSMPVITYVAALRTHILLKOR	TIYLGDPSSNEGSSDPS--	241



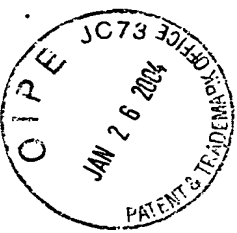


FIG. 3D

59D.1	229	-----DLEACTIDHKKHLELFRRIEAFISLPLMIQITVITALNVCIGLAALVFVSE---	PMARMYFI	FLSAMPLQIT	FPSCFFGT	305	
23A.1	226	-----DLVNCIRDONALYRLLDVTKLSVYPMVQFMVIGINIAITLFLVIFYVET---	LYDRIYVLC	FLLGITVQIT	VPILCYNGIT	302	
33B.1	227	-----RKLTIEGIDHRKLMKIIRLURSTLHLSQLGOFSSGINISITLINILFFAEN---	NFAMLYYAV	FFAAMLI	ELFPSCYNGI	304	
33B.2	229	-----KQLTIESIEDHRKLMKIVELURSTMNISQLGOFISSGWNISITLVNILFFADN---	NFAITYYGV	FFLSMVLFL	FPCCYNGIT	306	
33B.3	231	-----RLLDYIECHKLLVRHNLVSRITISEVQLVQGGCGATCIIIVSYMLFFVGD---	TISLVYVL	VFFGVVCVQ	LPSCYFAS	307	
2F.1	238	AWREEVYQELTECIRDLARVHRLREIIQRVLSVPCMAQFVCSAAVQCTVAMHFLYVADDH-DHTAMI	ISIVFFSAVT	LEVFI	ICYFGD	324	
22A.1	242	-----EELTECIRDLRLDYVDAURPVFSGTIFVQFLIGTVGLSMLNMFEST---	FMTGVATCL	FMEDVSMET	TFPCVLCN	318	
22A.2	242	-----KELADCVDRHLIIDYVDAURSVFSGTIFVQFLIGTVGLSMLNMFEST---	LSTGVAVVL	FMSCVSMQ	TEPCVLCN	318	
47E.1	234	-----NKVFALYQTSIDMCND-----UNQCYQPIICAOFFISSLOCLMGLYFSITFA---	QTEGVYMAS	FIATIIIOAY	YICYCGE	307	
46F.1	229	-----QQKENIRYHMTIVELSKTVERLLCKPISVQIFCSVLVLTANFYAIAVLSDE---	RLELFKXV	TYOACMLIQ	ITILCYVAG	306	
46F.2	228	-----AMELRECAAYNRIVRFKDLVELFIKGPQSVQLMCSVLVSVNLYDMSTMANGDAIFMLKTC	IMQIVMLWQ	ITICYASN		309	
22C.1	223	EMNAEVRHRLAQVVERHNAIIDFCTDITRQFTVIVLMHFLSAAFVLCSTILDIMLNTS---	SLSGLTYIC	YIIAALTQ	FLYCFGGN	306	
24D.1	215	AEEARIVREMEKLVDRHNEVAELTERLSGVWVEITLAHFVTSLLIGTSVVDILLFSG---	LGIIVWVW	YTCVAVGE	IFLYCLGGS	297	
43B.1	233	-----RLASCIAYHTQVMRYVWQNLKLVANIVAVEAIFGSIICSLFLCLNIVIT---	SPTQISIV	MYJLTMLY	VLEITYNRRAN	308	
47E.2	249	-----EFCRVVRFHQHIKLVGKANRAFNAGFAVQALMAFESLSISISTFETMAAAA--	VDPKMAK	FVLLMLVAF	QSLWCVSGT	326	
25A.1	242	-----YMFKSLVDCIKARHTMLNFCDAIQPIISGTIFAQFIICGSIIGIIMINMVL	FAD----	QSTRFGIV	IMVMAVLLQIT	FPCLCYCN	321

FIG. 3E

7

59D.1	306	DNEYWF-GR	HYA	AFSCN	HTQNR	FRK	KMM	FEQSL	KKST--	AVAGG	MMR	IHL	DTFF	STL	KGAVS	FTII	IIMRK	379																																																										
23A.1	303	MVQESF-AE	HYAVE	CSN	WDQS	SYRGH	MLI	LAERT	KRMQL--	LLAGN	LVPIH	LS	TYVAC	WKGVNS	FTIT	LMADRG	377																																																											
33B.1	305	LMTMEF-DK	LYAL	FSS	NML	KMD	RYN	RS	LI	LMQL	TL	VPVN--	IKAGG	IVG	IDS	AFATVR	MAVS	RYTLALS	375																																																									
33B.2	307	LISVEN-NQ	LYAL	YSS	NMM	SMN	RS	SR	LI	FMQL	TL	AEVQ--	IKAGG	MIG	IMW	AFATVR	LANS	FTILAM	376																																																									
33B.3	308	EVAEEL-ER	LYAL	FSS	PMY	DQSR	HR	FD	LI	FTQL	TGN	RGW	IKAGG	LI	ELN	MAFFAT	LKMAVS	FAVVRAKGI	384																																																									
2F.1	325	RMRTQS-EA	LCDA	FYDC	NW	TEQL	PKF	RELL	FT	LART	QPSL--	IVAGN	YIALS	ETFEQ	VMR	FTVS	FTILLRAK	397																																																										
22A.1	319	MIIDDC-QE	MSNC	LE	SD	MT	SAD	RRYK	ST	LVY	ELH	NLQ	PII--	LTAGG	VFP	ISMQ	TN	LMVKLA	FSVITV	IKQFN	LAERFQ---	397																																																						
22A.2	319	MIMDDC-QE	MADS	LE	SD	MT	SAD	RRYK	ST	LVY	ELH	NLQ	PII--	LTAGG	VFP	ISMQ	TN	LMVKLA	FTVY	TI	IKQFN	LAERFQ---	397																																																					
47E.1	308	NLKTES-AS	FEWA	YDS	PMH	ESL	GAG	GAST	SIC	RSL	LS	MMR--	AHRG	ERIT	GYF	FEANI	LVRT	AMSY	ITML	RSFS	380																																																							
46F.1	307	EVTQRS-LD	PHELYK	TSW	DWDY	RS	R	RIAL	FMQ	R	HL	STLR--	IRLN	PSL	GFD	MLE	SSV	SFRVL	TE	LC	T	VANFHN	381																																																					
46F.2	310	EVTVQS-SR	CHSI	YSS	MT	GN	RAN	RI	VLL	MMQ	R	FN	SPML--	LSTFN	PTAF	SLEA	FGS	IVNC	SY	ME	FALL	KRVNS	384																																																					
22C.1	307	HVSESS-AA	VA	DVLY	DMEY	KCD	ART	R	KVIL	MI	LR	RS	OKAKT--	IAVP	FT	PSL	PALQ--	IL	STAG	SYIT	LLK	TFL	377																																																					
24D.1	298	HIMEAC-SN	LA	RST	FSS	MYG	H	SV	R	VQ	KMT	LM	V	AR	Q	R	VLT--	IKIP	F	S	P	S	LET	TS-IL	RFTG	SL	AKSVI	369																																																
43B.1	309	EICLEN-NR	VAE	AVN	VP	MY	EAG	TR	FK	TL	IT	EL	M	Q	T	Q	PM	E--	TRVG	N	Y	P	M	T	LA	MFQ	SL	N	AS	SY	FTML	R	GV	TGK	383																																									
47E.2	327	LVY	TS	VE	VA	Q	A	F	D	I	N	D	H	T	K	S	P	G	I	O	R	D	I	S	F	V	I	L	R	A	Q	P	L	M--	Y	VAE	D	EL	P	FT	L	G	T	Y	M	L	V	L	K	N	C	Y	R	L	A	L	M	Q	E	S	M	380														
25A.1	322	AI	V	D	D	C	-KE	A	H	A	L	F	H	S	A	N	W	V	Q	D	K	R	Y	Q	R	I	V	I	Q	L	K	L	Q	P	M	T--	F	T	A	M	N	I	F	N	I	N	L	A	T	N	I	N	V	A	K	F	A	FT	V	A	I	A	S	G	M	N	L	D	Q	K	L	S	I	K	E	403

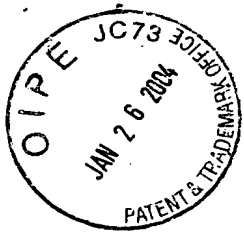


FIG. 4A

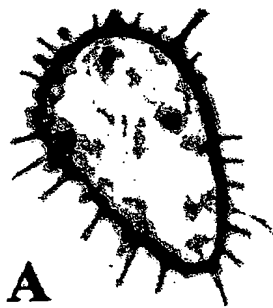
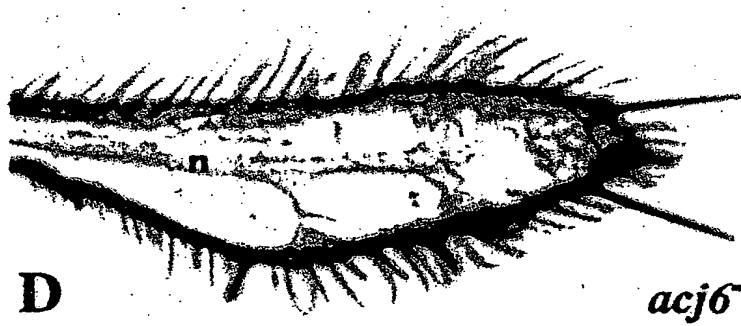
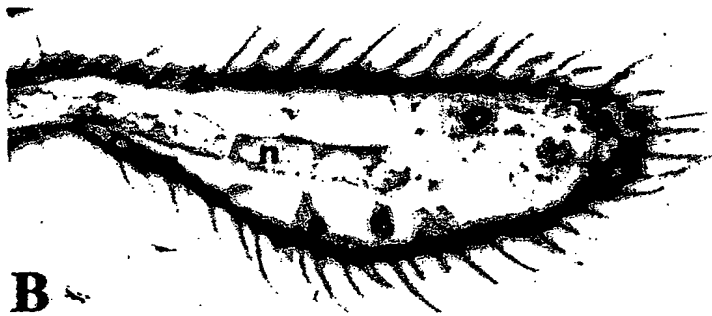


FIG. 4B



acj6

FIG. 4C

FIG. 4D

FIG. 5A



FIG. 5C



FIG. 5E



FIG. 5B

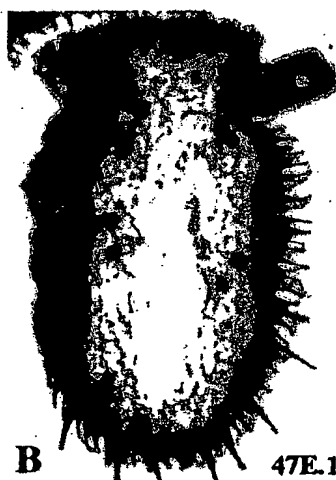


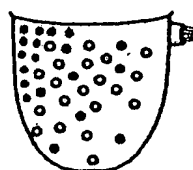
FIG. 5D



FIG. 5F



FIG. 5G



○47E.1
25A.1
22A.2

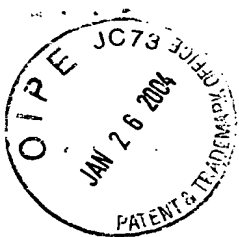


FIG. 6A

22A.2



FIG. 6B



FIG. 6C

47E.1



FIG. 6D



FIG. 6E

OS-E



FIG. 6F

